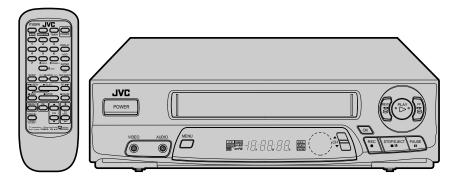


VIDEO CASSETTE RECORDER MAGNÉTOSCOPE À CASSETTE

HR-A22U







For Customer Use:

Enter below the Serial No. which is located on the rear of cabinet. Retain this information for future reference.

Model No. HR-A22U(C)

Serial No.

PU30425-1784

Dear Customer,

Thank you for purchasing the JVC VHS video cassette recorder. Before use, please read the safety information and precautions contained in the following pages to ensure safe use of your new VCR.

CAUTIONS



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK. DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.

CAUTION:

This video cassette recorder should be used with AC 120V \sim , 60Hz only.

To prevent electric shocks and fire hazards, DO NOT use any other power source.

CAUTION:

TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

ATTENTION:

POUR ÉVITER LES CHOCS ÉLECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQU'AU FOND.

Note to CATV system installer:

This reminder is provided to call the CATV system installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

CAUTION:

Changes or modifications not approved by JVC could void user's authority to operate the equipment.

Failure to heed the following precautions may result in damage to the VCR, remote control or video cassette. 1. <u>DO NOT</u> place the VCR . . .

- ... in an environment prone to extreme temperatures or humidity.
- ... in direct sunlight.
- ... in a dusty environment.
- ... in an environment where strong magnetic fields are generated.
- on a surface that is unstable or subject to vibration.
- 2. DO NOT block the VCR's ventilation openings.
- 3. DO NOT place heavy objects on the VCR or remote control. 4. DO NOT place anything which might spill on top of the VCR or remote control.
- 5. AVOID violent shocks to the VCR during transport.

****MOISTURE CONDENSATION**

Moisture in the air will condense on the VCR when you move it from a cold place to a warm place, or under extremely humid conditions-just as water droplets form on the surface of a glass filled with cold liquid. Moisture condensation on the head drum will cause damage to the tape. In conditions where condensation may occur, keep the VCR's power turned on for a few hours to let the moisture dry.

****ABOUT HEAD CLEANING**

Accumulation of dirt and other particles on the video heads may cause the playback picture to become blurred or interrupted. Be sure to contact your nearest JVC dealer if such troubles occur.



- Cassettes marked "VHS" (or "S-VHS") can be used with this video cassette recorder. However, only "VHS" recordings can be played back in this model.
- HQ VHS is compatible with existing VHS equipment.

IMPORTANT PRODUCT SAFETY INSTRUCTIONS

Electrical energy can perform many useful functions. But improper use can result in potential electrical shock or fire hazards. This product has been engineered and manufactured to assure your personal safety. In order not to defeat the built-in safeguards, observe the following basic rules for its installation, use and servicing.

ATTENTION:

Follow and obey all warnings and instructions marked on your product and its operating instructions. For your safety, please read all the safety and operating instructions before you operate this product and keep this booklet for future reference.

INSTALLATION

1. Grounding or Polarization

(A) Your product may be equipped with a polarized alternatingcurrent line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature.

If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.

(B) Your product may be equipped with a 3-wire grounding-type plug, a plug having a third (grounding) pin. This plug will only fit into a grounding-type power outlet. This is a safety feature.

If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding-type plug.

2. Power Sources

Operate your product only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company. If your product is intended to operate from battery power, or other sources, refer to the operating instructions.

3. Overloading

Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.

4. Power Cord Protection

Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the product.

5. Ventilation

Slots and openings in the cabinet are provided for ventilation. To ensure reliable operation of the product and to protect it from overheating, these openings must not be blocked or covered.

- Do not block the openings by placing the product on a bed, sofa, rug or other similar surface.
- Do not place the product in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.

6. Wall or Ceiling Mounting

The product should be mounted to a wall or ceiling only as recommended by the manufacturer.

ANTENNA INSTALLATION INSTRUCTIONS

1. Outdoor Antenna Grounding

If an outside antenna or cable system is connected to the product, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. Article 810 of the National Electrical Code, ANSI/NFPA 70, provides information with regard to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding connectors, location of antenna discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

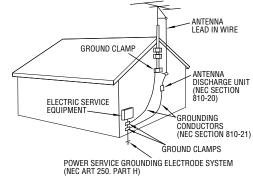
2. Lightning

For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power-line surges.

3. Power Lines

An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.

EXAMPLE OF ANTENNA GROUNDING AS PER NATIONAL ELECTRICAL CODE, ANSI/NFPA 70



NEC - NATIONAL ELECTRICAL CODE

USE

1. Accessories

To avoid personal injury:

- Do not place this product on an unstable cart, stand, tripod, bracket, or table. It may fall, causing serious injury to a child or adult, and serious damage to the product.
- Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer or sold with the product.
- Use a mounting accessory recommended by the manufacturer and follow the manufacturer's instructions for any mounting of the product.
- Do not try to roll a cart with small casters across thresholds or deep-pile carpets.

2. Product and Cart Combination

A product and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the product and cart combination to overturn.

PORTABLE CART WARNING (Symbol provided by RETAC)



Do not use this product near water—for example, near a bath tub, wash bowl, kitchen sink or laundry tub, in a wet basement, or near a swimming pool and the like.

4. Object and Liquid Entry

Never push objects of any kind into this product through openings as they may touch dangerous voltage points or shortout parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.

5. Attachments

Do not use attachments not recommended by the manufacturer of this product as they may cause hazards.

6. Cleaning

Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

7. Heat

The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

SERVICING

1. Servicing

If your product is not operating correctly or exhibits a marked change in performance and you are unable to restore normal operation by following the detailed procedure in its operating instructions, do not attempt to service it yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

2. Damage Requiring Service

Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions: a. When the power supply cord or plug is damaged.

- b.lf liquid has been spilled, or objects have fallen into the product.
- c. If the product has been exposed to rain or water.
- d. If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation.
- e. If the product has been dropped or damaged in any way. f. When the product exhibits a distinct change in
- performance—this indicates a need for service.

3. Replacement Parts

When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards.

4. Safety Check

Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in safe operating condition.

HOW TO USE THIS INSTRUCTION MANUAL

- All major sections and subsections are listed in the Table Of Contents on page 5. Use this when searching for information on a specific procedure or feature.
- The Index on pages 31–33 lists frequently-used terms, and the number of the first page on which they are used or explained in the manual. This section also illustrates the controls and connections on the front and rear panel, the front display panel and the remote control.
- The CF mark signals a reference to another page for instructions or related information.
- Operation buttons necessary for the various procedures are clearly indicated through the use of illustrations at the beginning of each major section.

BEFORE YOU INSTALL YOUR NEW VCR . . .

- ... please read the sections/literature listed below.
- "Cautions" on page 2
- "Important Products Safety Instructions" on the previous pages



CONTENTS

NSTALLING YOUR NEW VCR	6
Basic Connections	

NITIAL SETTINGS7Clock7Preparation7Language Select7Clock Setting8Tuner9Set Receivable Channels9Add Or Delete A Channel11

	12
Simple Playback	
Simple Recording	

PLAYBACK AND RECORDING

	1-1
Playback	14
Still Picture	
Slow, Reverse, Reverse Slow Or Fast	-Motion
Picture	
Manual Tracking	15
Superimpose	16
Skip Search	17
Repeat Playback	
Index Search	17
Counter Reset	
Tape Position Indicator	
Next-Function Memory	
Recording	19
Record One Program While	
Watching Another	19
Display Elapsed Recording Time	19

IMER RECORDING20Instant Timer Recording (ITR)20On-Screen Timer Programming20Check And Cancel Programs22Auto Timer23

L DITING24Edit To Or From Another VCR24Edit From A Camcorder25Special FEATURES26Matrix Barrado Density Control26

Multi-Brand Remote Control 26

ROUBLESHOOTING27Power27Tape Transport27Playback27Recording27Timer Recording28Other Problems28

DPECIFICATIONS

NDEX

14

31

30

List Of Terms	
Front View	
Rear View	
Front Display Panel	
Remote Control	

_

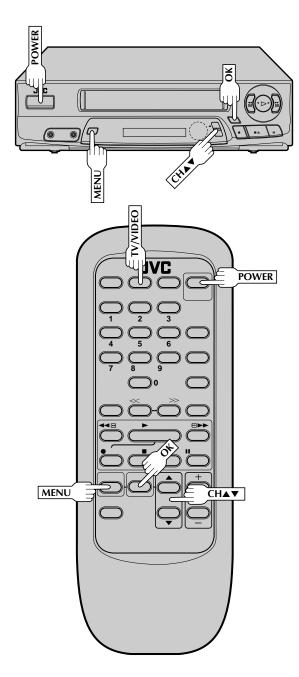
6	INSTALLING YOUR NEW VCR
Basic Connections	 CHECK CONTENTS Make sure the package contains all of the accessories listed in "SPECIFICATIONS" (IFF pg. 30). SITUATE VCR Place the VCR on a stable, horizontal surface.
Coaxial Cable Flat Feeder Maching Transformer AC Power Cord Back of VCR ANTENNA-IN (Antenna or Cable input)	 B CONNECT VCR TO TV The connection method you use depends on the type of TV you have. RF Connection To Connect To A TV With NO AV Input Terminals a- Disconnect the TV antenna from the TV. b Connect the TV antenna cable to the ANT IN jack on the rear of the VCR. c Connect the supplied RF cable between the RF OUT jack on the rear of the VCR and the TV's antenna terminal. AV Connection To Connect To A TV With AV Input Terminals a- Connect the antenna, VCR and TV as shown in the illustration. b Connect an Audio/Video Cable (not supplied) between the AUDIO OUT and VIDEO OUT jacks on the rear of the VCR and the AV IN jacks on the TV.
AC Outlet TV RF Cable (provided) 75 ohm terminal	 CONNECT VCR TO POWER SOURCE Connect the power plug to an AC outlet. FINAL PREPARATION FOR USE Select the VCR channel (3 or 4) by setting the switch on the rear of the VCR as shown in the illustration.
Back of VCR	 Turn on the power to the TV. You are now able to perform simple playback (IFF pg. 12) and recording (IFF pg. 13). NOTES: The VCR channel is the channel on the TV which will display the audio and video signals from the VCR. The CH3-CH4 switch is preset to the CH3 position. Set to CH4 if CH3 is used for broadcasting in your area. If your TV has no AV input terminals, set the channel on the TV to correspond to the CH3-CH4 switch on the back of the VCR. Even if your TV has AV input terminals, you must connect it to the VCR using an RF cable in order to record one show while watching another (IFF pg. 19). For full identification of the VCR's rear panel, refer to the Index (REAR VIEW IFF pg. 32).

.

--

INITIAL SETTINGS

Clock



Preparation

TURN ON THE VCR Press POWER. If watching channel 3 or 4, press

TV/VIDEO to select the VIDEO mode. VIDEO is displayed on the front display panel.

ACCESS ON-SCREEN MENU

Press **MENU** to bring up the Main Menu screen.

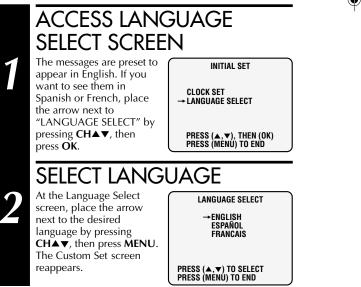
ACCESS INITIAL SET SCREEN

At the Main Menu screen, place the arrow next to "INITIAL SET" by pressing CH▲▼, then press OK.

MAIN MENU PROGRAM SET FUNCTION SET TUNER SET →INITIAL SET

PRESS (▲,▼), THEN (OK) PRESS (MENU) TO END

Language Select



8	INITIAL SETTINGS (cont.
	Clock Setting
	ACCESS MODE SELECT SCREEN Place the arrow at the Initial Set screen next to "CLOCK SET" by pressing CH▲▼, then press OK.
NUMBER + 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	 SET DATE, TIME AND D.S.T. Press the appropriate NUMBER keys to set the date and time (if only 1 digit, press "0" first), and press CHA▼ to set AM/ PM and D.S.T. (Daylight Saving Time) to "ON" (automatic adjustment based on VCR's clock) or "OFF" (if D.S.T. doesn't apply to you). Press OK after AM/PM and D.S.T. settings, and when you're finished with this screen, press MENU to start the clock. MOTE: CHA▼ can be used to perform all operations. (In this case, press OK after each setting.) MAKE CORRECTIONS To change any of the settings, press OK until the item you want to change blinks, then set as in step 2.

.

-

۲

	Set Receivable Channels
Uner	TURN ON THE VCR Press POWER. If watching on channel 3 or 4, press TV/VIDEO to select the VIDEO mode. VIDEO is displayed on the front display panel.
	ACCESS MAIN MENU SCREEN Press MENU.
WENU	ACCESS TUNER SET SCREEN Place the arrow next to "TUNER SET" by pressing CHAT, then press OK.
	<text><text><text><text><text><text><text><text></text></text></text></text></text></text></text></text>

•

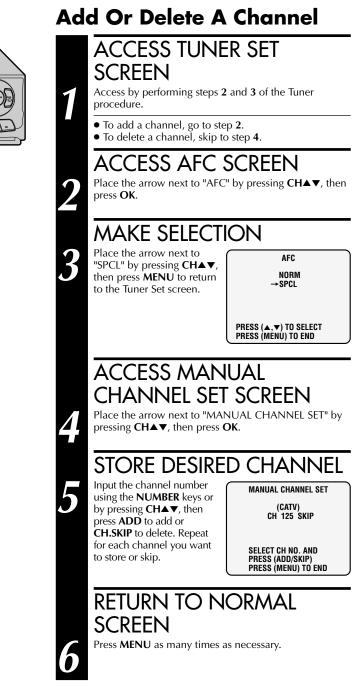
-

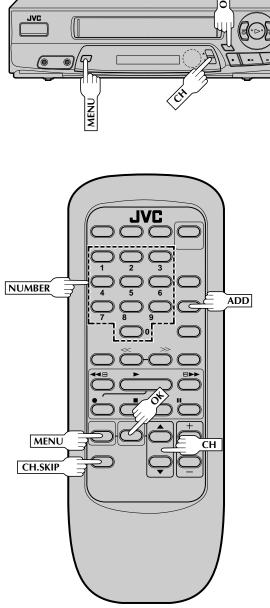
<text><text><text><text><text><text><text><text><text><text><text></text></text></text></text></text></text></text></text></text></text></text>		Ť
<image/>	10	INITIAL SETTINGS (cont.)
		 SET Place the arrow next to "AUTO CHANNEL SET" by pressing CHA▼, then press OK. Receivable channels in your area are automatically assigned to the CHA▼ buttons, and non-receivable channels are skipped. MOTES: At the end of Auto Channel Set, "SCAN COM-PLETED" appears on screen. If the scan was unsuccessful, "SCAN COMPLETED-NO SIGNAL" appears on screen. Check the band setting and connections and start again. RETURN TO NORMAL

.

•

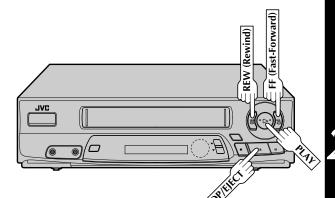
--

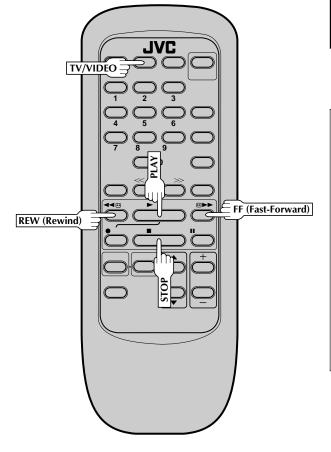




SIMPLE PLAYBACK AND RECORDING

Simple Playback





LOAD A CASSETTE

Make sure the window side is up, the rear label side is facing you and the arrow on the front of the cassette is pointing towards the VCR. Don't apply too much pressure when inserting.

- The VCR's power comes on automatically.
- If watching channel 3 or 4, press TV/VIDEO to select the VIDEO mode. VIDEO is displayed on the front display panel.
- The counter is automatically reset to "0H 00M 00S".
- If the cassette's record safety tab has been removed, playback begins automatically.

FIND PROGRAM START POINT

If the tape is advanced past the start point, press **REW**. To go forward, press **FF**.

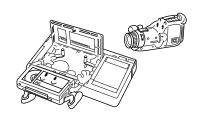
START PLAYBACK Press PLAY.



STOP PLAYBACK Press STOP or STOP/EJECT. Then press STOP/EJECT to remove the tape.

Usable cassettes

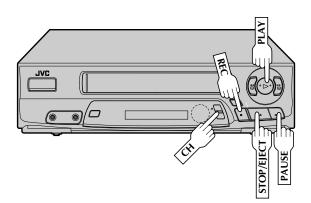
Full-Size VHS T-30 (ST-30**) T-60 (ST-60**) T-90 T-120 (ST-120**) T-160 (ST-160**) ST-210**

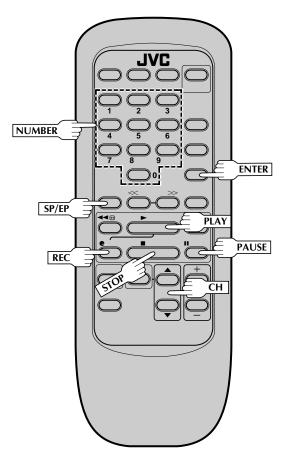


Compact VHS* TC-20 (ST-C20**) TC-30 (ST-C30**) TC-40 (ST-C40**)

- ⁶ Compact VHS camcorder recordings can be played on this video recorder. Simply place the recorded cassette into a VHS Cassette Adapter and it can be used just like any full-sized VHS cassette.
- ** This video recorder can record on regular VHS and Super VHS cassettes. However, it will record and play back regular VHS signals only. It is not possible to play back a recorded Super VHS tape.

Simple Recording





LOAD A CASSETTE

Make sure the record safety tab is intact. If not, cover the hole with adhesive tape before inserting the cassette.

SELECT RECORDING CHANNEL

Press **CH**▲**▼**. Or press the appropriate **NUMBER** keys, then press **ENTER**. (The channel changes after a few seconds whether you press **ENTER** or not.)



Press **SP/EP** to set the recording speed.

START RECORDING

Press **REC** and **PLAY** on the remote control together, or press **REC** on the VCR's front panel.

PAUSE/RESUME RECORDING

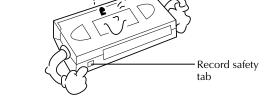
Press PAUSE. Press PLAY to resume recording.

STOP RECORDING

Press **STOP** or **STOP/EJECT**. Then press **STOP/EJECT** to remove the cassette.

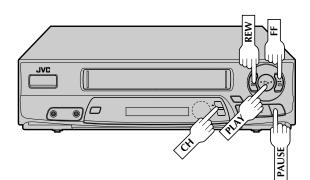
Accidental erasure prevention

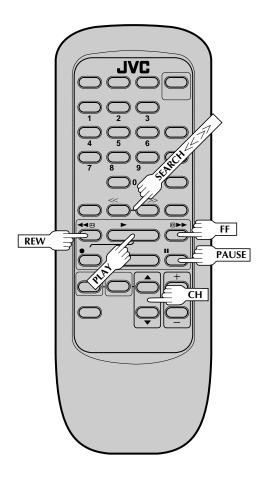
To prevent accidental recording on a recorded cassette, remove its record safety tab.
 To record on it later, cover the hole with adhesive tape.



PLAYBACK AND RECORDING FEATURES

Playback





Still Picture

PAUSE DURING PLAYBACK

Press **PAUSE**. If there is vertical jitter, press **CH**▲ or ▼ on the VCR's front panel or remote to stabilize the picture.

FRAME-BY-FRAME PLAYBACK

- Advance the tape one frame by pressing **PAUSE** again.
 - To control direction, press **SEARCH**<< or >> during still picture mode.

RESUME NORMAL PLAYBACK

Press PLAY during still picture mode.

Slow, Reverse, Reverse Slow Or Fast-Motion Picture

DURING PLAYBACK

Press SEARCH<< or >>.

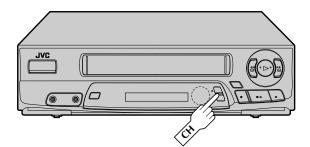
- To increase the speed in the forward direction,
- press >>.To decrease the speed in the forward direction,
- To be the speed in the forward direction, press <<.
 To play in reverse slow motion, and in reverse play
- mode, continue to press << after selecting all the forward slow motion modes.

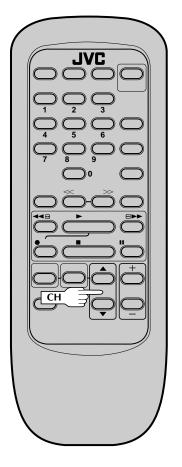
Press \mathbf{FF} for forward fast motion, or \mathbf{REW} for reverse fast motion.

RESUME NORMAL PLAYBACK Press PLAY.

NOTES:

- Press and hold FF or REW for more than 2 seconds for short fast-motion searches. When the button is released, normal playback resumes.
- If noise bars appear during playback or slow motion, correct using manual tracking. (1), 19).





Manual Tracking

Once playback begins, the VCR's automatic tracking function is engaged. If noise appears in the picture, you can override this and make the adjustment manually.

ENGAGE MANUAL TRACKING MODE

During playback, press the CH▲▼ buttons on the VCR's front panel simultaneously to cancel the automatic tracking mode and enable manual tracking adjust.

ADJUST MANUAL TRACKING

Press **CH**▲▼ on the VCR's front panel or remote. Press lightly for fine adjust, or press and hold for coarse adjust. Watch the screen and continue adjusting until optimum picture and sound quality are achieved.

RE-ENGAGE AUTOMATIC TRACKING

Press the $CH \blacktriangle \forall$ buttons on the VCR's front panel simultaneously.

NOTE:

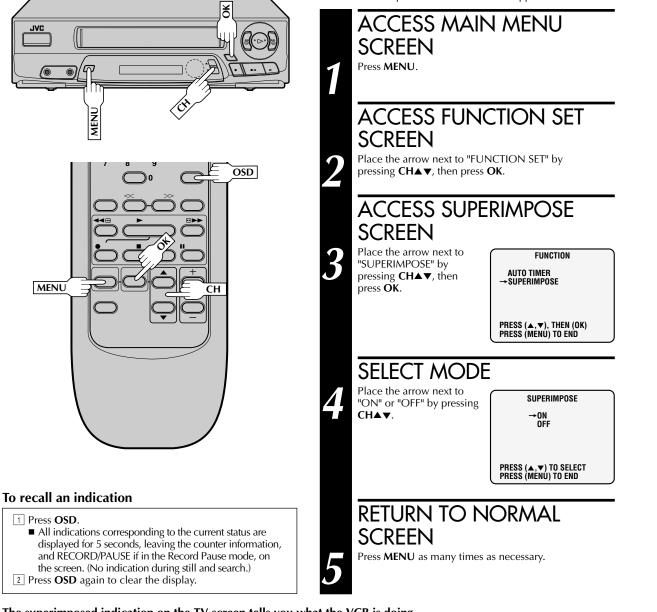
During slow-motion playback, simply press $CH \blacktriangle$ or \checkmark on the VCR's front panel or remote to adjust tracking.



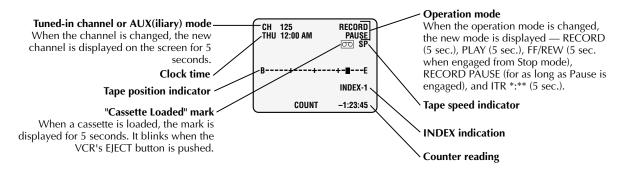
PLAYBACK AND RECORDING FEATURES (cont.)

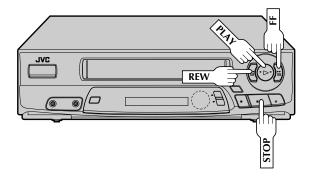


This function, switchable between ON and OFF, determines whether or not operational indicators will appear on screen.

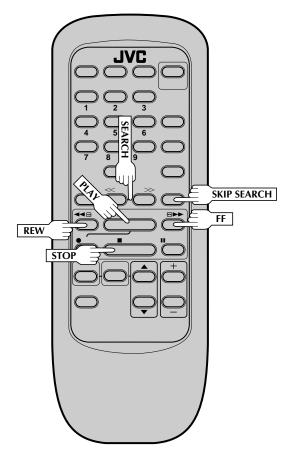


The superimposed indication on the TV screen tells you what the VCR is doing.









Skip Search



SKIP OVER UNWANTED SECTIONS

Press SKIP SEARCH 1 to 4 times during playback. Each press initiates a 30-second period of fast-motion playback. Normal playback resumes automatically.

NOTE:

To return to normal playback during a Skip Search, press PLAY.

Repeat Playback



START REPEAT

Press and hold PLAY (until "PLAY" blinks on the front display panel) during playback, then release.

• The entire tape is played back 20 times.



To stop, press STOP at any time.

NOTE:

Pressing PLAY, REW, FF or PAUSE also stops Repeat Playback.

Index Search

This function seeks out index codes that are placed on the tape at recording start.

START SEARCH

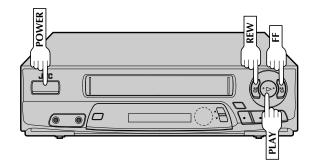
While the tape is stopped, press **SEARCH** << or >>.

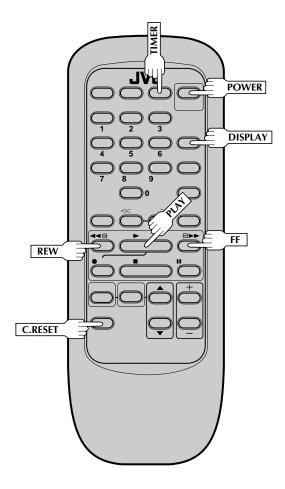
ACCESS DISTANT CODE

To access a recording 2-9 index codes away, press SEARCH << or >> repeatedly until the correct number is displayed on screen (only if SUPERIMPOSE is set to ON (pg. 16). Playback begins automatically when desired recording is located.

• To find the very beginning of the desired program, press **REW** or **FF** and search visually for the start point.

PLAYBACK AND RECORDING FEATURES (cont.)





Counter Reset

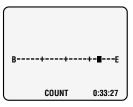


By pressing the **DISPLAY** button, you can change the display to show the counter reading, channel number or clock time. (Channel number is not displayed during playback.)

Tape Position Indicator

The Tape position indicator appears on screen when, from the stop mode, you press FF, REW or perform an Index Search. The position of "
" in relation to "B" (Beginning) or "E" (End) shows you where you are on the tape.

** SUPERIMPOSE must be set to ON, or the indicator will not appear (🖙 pg. 16).



Next-Function Memory

The Next Function Memory "tells" the VCR what to do after rewinding.

* Before continuing, ensure that the VCR is in stop mode. a- For Automatic Start Of Playback After Tape Rewind . . .

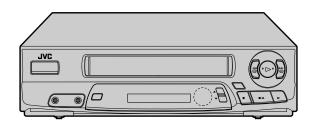
... press **REW**, then press **PLAY** within 2 seconds. **b**– For Automatic Power Off After Tape Rewind . . .

... press **REW**, then press **POWER** within 2 seconds.

c– For Automatic Timer Standby After Tape Rewind . . .

... press REW, then press TIMER within 2 seconds.

Recording



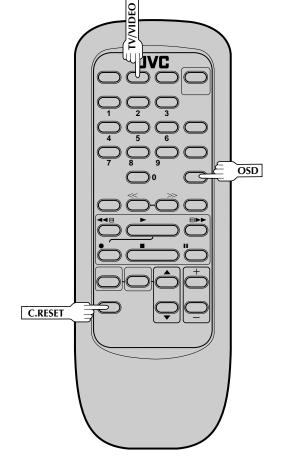
Record One Program While Watching Another



SELECT CHANNEL FOR VIEWING

Use the TV's channel selector to set the channel you want to watch.

Display Elapsed Recording Time

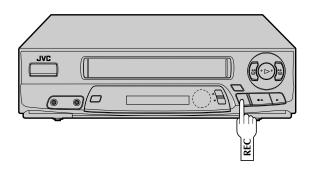


RESET COUNTER TO ZERO Before recording starts, press **C.RESET**. The counter resets to zero and displays the exact elapsed time as the tape runs.

DISPLAY ELAPSED TIME ON SCREEN

During recording, press OSD at any time to see the elapsed time. Press again to remove the display.
Make sure "SUPERIMPOSE" is set to "ON" (III) pg. 16).

Instant Timer Recording (ITR)





This easy method lets you record for from 30 minutes to 6 hours (selectable in 30-min. increments), and shuts the VCR off after recording is finished.



ENGAGE ITR MODE

Press **REC** again. ITR blinks and 0:30 appears on the front display panel.

Set recording Duration

If you want to record for more than 30 minutes, press **REC** to extend the time. Each press extends recording time by 30 minutes.

NOTES:

- You can only perform ITR using the **REC** button on the VCR's front panel.
- After you set the time, the previous display reappears.
- To check remaining recording time, press **REC** once during recording and the remaining time is displayed for about 5 seconds. Be careful not to press again during this 5 seconds, or you'll add 30 more minutes to the recording.

On-Screen Timer Programming

* Refer to the illustration on page 21.

You can directly program the VCR's timer to record up to 8 shows, as far as a year in advance. Remember, the clock must be set before you can program the timer ($\square pg. 7$).

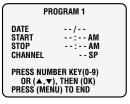
LOAD A CASSETTE

Make sure the record safety tab is intact. If not, cover the holewith adhesive tape, then load.

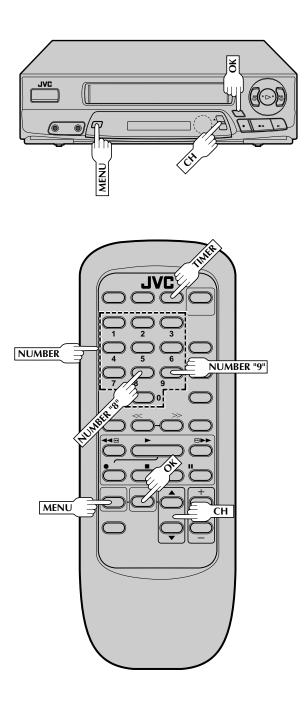
• The VCR comes on, and the counter is reset, automatically.

ACCESS PROGRAM SET SCREEN

Press **MENU**, then press **OK**.



TIMER RECORDING



EXAMPLE

If you program the VCR to timer record a show on September 6 on channel 40 from 12:00 noon to 1:00 PM in SP mode, the screen will look like this:

		_
PRO)GRAM 1	
DATE Start Stop Channel	9/6 SUN 12:00 PM 1:00 PM 40 SP	
PRESS NUMBER KEY(0-9) OR (▲,▼), THEN (OK) PRESS (MENU) TO END		

SELECT PROGRAM

Press the appropriate **NUMBER** keys or **CH** \blacktriangle to select a vacant program number, then press **OK**. The first time you do this, all numbers will be vacant, so just press **OK** when the screen appears.

SET PROGRAM INFORMATION

Press the appropriate **NUMBER** keys to set the date, start/stop time and channel number. Press **CH** \blacktriangle to set AM/PM, channel number and tape speed. Then press **OK** after AM/PM and tape speed settings.

- Any information comprised of 1 digit (except the channel number) should have a "0" entered before it.
- It is possible to set all information using the CH▲▼ buttons. (In this case, press OK after each setting.)
- ** You can record selected programs at the same time every weekday, or once a week. Before entering the month, press NUMBER key "8" (DAILY) or "9" (WEEKLY). Either "DAILY" or "WEEKLY" appears. Press again and "DAILY" or "WEEKLY" disappears.

MAKE CORRECTIONS

To change any of the settings, press **OK** until the item you want to change begins blinking. Then set as in step **4**.

RETURN TO NORMAL SCREEN

Press MENU as many times as necessary.

• Press just once to access the Auto Timer screen (IF pg. 23).

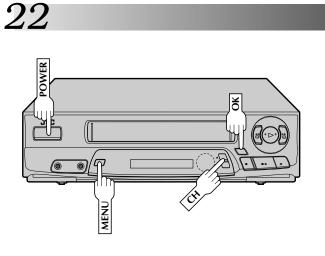
ENGAGE TIMER MODE

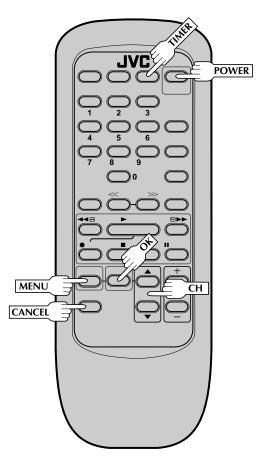
Press TIMER. The VCR turns off automatically.

NOTES:

Ĩ

- To disengage the timer before recording starts, press **TIMER** again. Pressing once more re-engages it.
- In case of a power failure after programming, the VCR's memory backup keeps your selections for 10 minutes.
- If you select "PROGRAM SET" without having set the date and time, an error message appears. Follow its instructions.
- If you enter a start time that has already passed, ERROR appears on the screen and flashes.
- Programs that start after midnight must have the next day's date.
- After timer recording is completed, the VCR's power goes off automatically.
- You can program the timer while a regular recording is in progress; the on-screen menu will not be recorded.
- If the end of tape is reached during timer recording, the cassette is automatically ejected.
- When timer-recording cable channels received through a Cable Box, be sure to keep the Cable Box set to ON.





TIMER RECORDING (cont.)

Check And Cancel Programs

DISENGAGE TIMER Press TIMER, then press POWER.

ACCESS PROGRAM SET

SCREEN

Press MENU, then press OK.

CHECK PROGRAM INFOR-MATION

Press **CH▲▼** to check the programs in succession.

To Cancel A Program . . .



CANCEL A PROGRAM Press CANCEL.

-

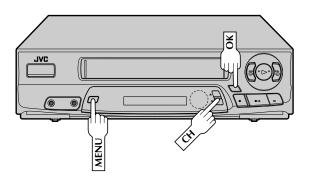
• Repeat steps 3 and 4 as many times as necessary.

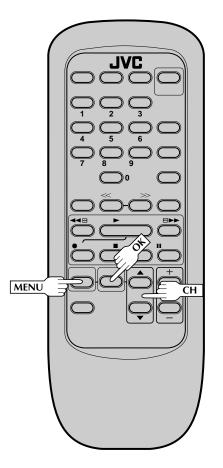
RETURN TO NORMAL SCREEN

Press \mbox{MENU} as many times as necessary. If there are still programs remaining, go to step ${\bf 6}.$

RE-ENGAGE TIMER

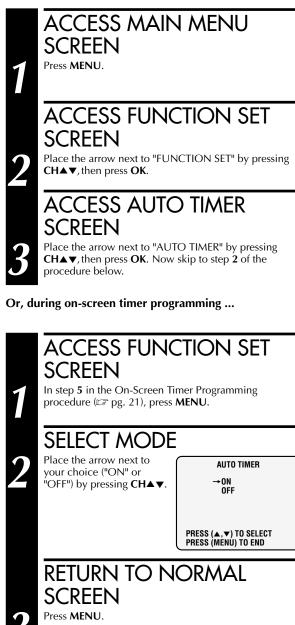
Press TIMER again.





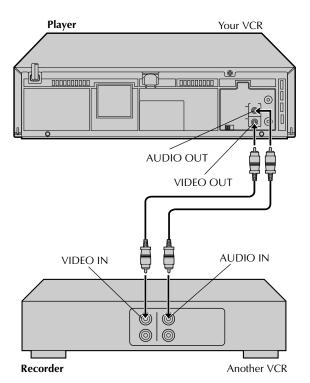
Auto Timer

When activated, this function engages the timer when the VCR is turned off, and disengages it when the power is turned on, automatically.

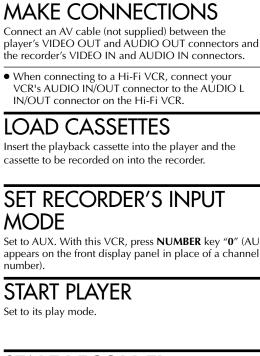


EDITING

Edit To Or From Another VCR

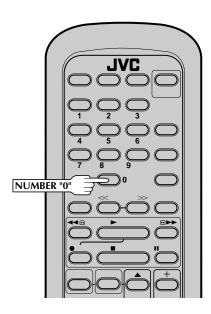


You can use your VCR as the player or the recorder.

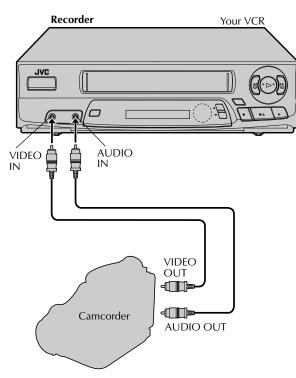


START RECORDER

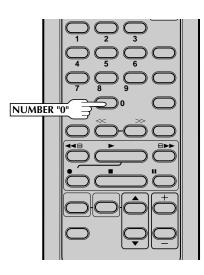
Set to its record mode.



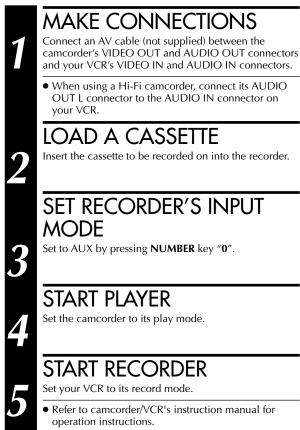
Edit From A Camcorder



Player

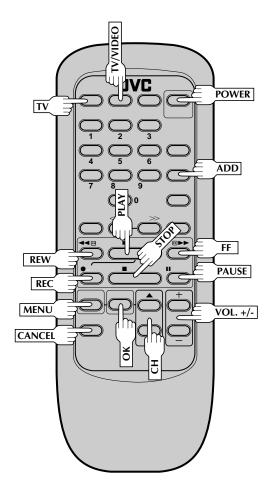


You can use a camcorder as the player and your VCR as the recorder.



SPECIAL FEATURES

26



Multi-Brand Remote Control

In addition to controlling several functions on JVC remote control TVs, the VCR's remote control can control these functions on the TV brands listed below. If your television is a JVC, you don't have to set the code in step **1**.

SELECT TV BRAND

Refer to the chart below. While holding down **TV**, press the Brand Selection Button that corresponds to the brand of your TV.

• You don't have to repeat this step until you replace the remote control's batteries.

OPERATE TV

While holding down TV, press POWER, CH▲▼ or TV/VIDEO to control these functions. VOL+/– can be operated without holding TV down.

• The **NUMBER** keys cannot be used to set or change the channel on the TV.

BRAND Selection Button	TV BRAND NAME
REW	JVC
PLAY	MAGNAVOX
FF	MITSUBISHI
REC	PANASONIC
STOP	RCA
PAUSE	SHARP
MENU	SONY
OK	TOSHIBA
ADD	ZENITH
CANCEL	HITACHI

NOTES:

- With some televisions, the **TV/VIDEO** button only functions to switch the TV to its VIDEO (AV) mode. It may not switch the TV back to its TV mode.
- Although the provided remote control is compatible with JVC televisions as well as many TV models manufactured by other companies, it is possible that the provided remote control will not work with your TV.

TROUBLESHOOTING

27

Before requesting service for a problem, use this chart and see if you can repair the trouble yourself. Small problems are often easily corrected, and this can save you the trouble of sending your VCR off for repair.

POWER		
SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
1. The power won't come on.	• The power cord is disconnected.	Connect the power cord.
2. The clock works, but the VCR's power won't come on.	• The TIMER mode is engaged with Auto Timer set to "OFF" (IF pg. 23).	Press TIMER to disengage.
3. The remote control won't function.	• The batteries are discharged.	Replace the dead batteries with new ones.
TAPE TRANSPORT		
SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
1. The cassette gets stuck partway during loading, and is ejected.	• The cassette was inserted incorrectly.	Make sure the window side is up, the rear label side is facing you and the arrow on the front of the cassette is pointing towards the VCR. Then insert the cassette
PLAYBACK		
SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
 The tape is running but the picture won't appear. 	 If you're using the RF OUT connection (IFF pg. 6), the channel selector on the TV is set incorrectly. If you're using the AV connection (IFF pg. 6), the TV receiver is set to the wrong mode. 	Set the channel selector to channel 3 or 4. Set the TV receiver to its AV mode.
2. Noise appears during visual search.	• This is normal.	
3. The playback picture is blurred or interrupted, even though TV broadcasts are clear.	• The video heads may be dirty.	The heads must be cleaned. Consult your JVC dealer.
RECORDING		
SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
1. Recording won't start.	 There's no cassette loaded. The loaded cassette has had its record safety tab removed. 	Insert a cassette. Remove the cassette and cover the hole with adhesive tape, or load a cassette on which the record safety tab is intact.
2. TV broadcasts won't record properly.	• The VCR has been set to its AUX mode by mistake.	Set the VCR to the appropriate channel.
3. Tape-to-tape editing won't work.	 The camcorder and the VCR have been incorrectly connected. The power to one or more of the units has not been turned on. 	Refer to the directions and the illustration under "Edit From A Camcorder" (IIF pg. 25) and properly connect the units. Make sure the power to all units is on.

CONTINUED ON NEXT PAGE.

•

TROUBLESHOOTING (cont.)

۲

TIMER RECORDING		
SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
1. Timer recording won't work.	 The clock and/or the timer have been set incorrectly. The timer is not engaged. The VCR has not been set up properly. 	Check or re-perform the clock/timer settings to ensure correctness. Press TIMER and check to make sure that TIMER appears on the front display panel. Re-perform the set-up procedures (IFF pg. 7).
2. On-screen timer programming won't work.	• Timer recording is in progress.	Timer programming can't be performed when timer recording is in progress. Wait until it finishes.
3. TIMER and 🗺 on the front display panel won't stop blinking.	• The timer is engaged but there's no cassette loaded.	Load a cassette with the record safety tab intact, or with the hole covered with adhesive tape.
 The cassette is automatically ejected, and TIMER and on the front display panel won't stop blinking. 	• The loaded cassette has had its record safety tab removed.	Remove the cassette and cover its hole with adhesive tape, or replace it with a cassette on which the safety tab is intact.
5. TIMER blinks for 10 seconds and the timer mode is disengaged.	• TIMER has been pressed when there are no programs in memory, or the timer record program information has not been programmed correctly.	Check the programmed data and re- program as necessary, then press TIMER again.
6. The cassette is automatically ejected, the power shuts off and TIMER and 💿 won't stop blinking.	• The end of tape was reached during timer recording.	The program may not have been recorded in its entirety. Next time make sure you have enough time on the tape to record the entire program.
OTHER PROBLEMS		
SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
1. When scanning channels, some of them are skipped over.	• Those channels have been preset to be skipped.	If you need the skipped channels, restore them (🖙 pg. 11).
2. The channel can't be changed.	• Recording is in progress.	Press PAUSE to pause the recording, change channels, then press PLAY to resume recording.

ATTENTION:

This recorder contains microcomputers. External electronic noise or interference could cause malfunctioning. In such cases, switch the power off and unplug the power cord. Then plug it in again and switch power on. Take out the cassette. After checking the cassette, operate the unit as usual.

QUESTIONS AND ANSWERS

PLAYBACK

_	
-	What happens if the end of the tape is reached during playback or search?
A.	The tape is automatically rewound to the beginning.
	Can the VCR indefinitely remain in the still mode? No. It stops automatically after 5 minutes to protect the heads.
•	During search, slow, still and frame-by-frame playback, I can't hear any audio. What's the problem? This is normal.
•	During search, still and frame-by-frame playback, the picture is intermittent. What's the cause? Picture loss occurs when these types of playback are attempted with a tape recorded in LP mode. Pressing PLAY to return to normal playback will restore the picture.
	When returning from multi-speed search to normal playback, the picture is disturbed. Should I be concerned about this? No, it is normal.
•	Noise bars appear during multi-speed search. What's the problem? This is normal.
	Other than preventing further recording, what effect does removing the safety tab have? It disables marking of index codes.
-	Sometimes, during Index Search, the VCR can't find the program I want to see. Why not? There may be index codes too close together.

RECORDING

 Q. When I pause and then resume a recording, the end of the recording before the pause is overlapped by the new recording. Why does this happen? A. This is normal. It reduces distortion at the pause and resume points. 	1
 Q. Can the VCR indefinitely remain in the Record-Paus mode? A. No. The VCR shuts off automatically after 5 minutes to protect the heads. 	e.
Q. What happens if the tape runs out during recording A. The VCR automatically rewinds it to the beginning. TIMER RECORDING	?
 Q. REC and TIMER remain lit on the front display panels there a problem? A. No. This is a normal condition for a timer recording progress. 	
 Q. Can I program the timer while I'm watching a tape or a TV broadcast? A. You won't see the picture as it is replaced by the onscreen menu, but the audio from the program or tapy you're viewing is present. 	e

SPECIFICATIONS

GENERAL	
Power requirement	: AC 120 V \sim , 60 Hz
Power consumption	: 19 W
Temperature	
Operating	: 5°C to 40°C (41°F to 104°F)
Storage	$:-20^{\circ}$ C to 60° C (-4° F to 140° F)
Operating position	: Horizontal only
Dimensions (W x H x D)	: 360 x 94 x 276 mm
	(14-3/16" x 3-3/4" x 10-7/8")
Weight	: 3.4 kg (7.5 lbs)
Format	: VHS NTSC standard
Maximum recording time	e
SP	: 210 min. with ST-210 video
	cassette
EP	: 630 min. with ST-210 video
	cassette

VIDEO/AUDIO

Signal system	: NTSC-type color signal and EIA monochrome signal, 525 lines/60 fields
Recording/	
Playback system	: Rotary two-head helical scan system
Signal-to-noise ratio	: 45 dB
Horizontal resolution	: 240 lines
Frequency range	: 70 Hz to 10,000 Hz
Input/Output	: RCA connectors
	(IN x 1, OUT x 1)

TUNER

Tuning system	: Frequency-synthesized tuner
Channel coverage	
VHF	: Channels 2–13
UHF	: Channels 14–69
CATV	: 113 Channels
RF output	: Channel 3 or 4 (switchable;
·	preset to Channel 3 when
	shipped) 75 ohms,
	unbalanced

TIMER

Clock reference Program capacity	: Quartz : 1-year programmable timer/
Memory backup time	8 programs : Approx. 10 min.
ACCESSORIES	

Provided	accessories

: RF cable (F-type), Infrared remote control unit, "AA" battery x 2

Specifications shown are for SP mode unless otherwise specified. E. & O.E. Design and specifications subject to change without notice.

INDEX

List Of Terms

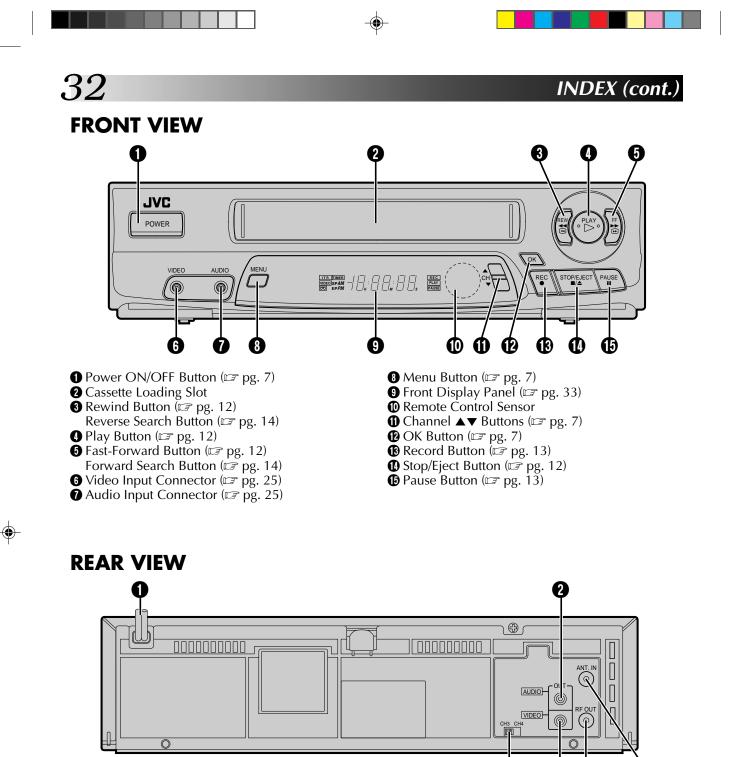
This guide serves as a quick way to locate frequently used terms and on-screen display names. The first page on which the term appears is listed. Most terms appear more than once in the instruction manual.

۲

Α
Add Channel 11
AFC11
Auto Channel Setting10
Auto Timer
Automatic Tracking15
AV Connection
B
Band9
C
Cancel Program22
Cassette Adapter12
Check Program
Connection to TV
Contents5
Counter Reset
D
Delete Channel 11
<u>E</u>
Editing
F
Fast Motion Playback14
Frame-by-Frame Playback14
Frame-by-Frame Playback
I
Index Search17
Insert Cassette12
ITR (Instant Timer Recording)20
L
Language Selection7

<u>M</u>
Main Menu7Manual Channel Setting11Manual Tracking15MBR (Multi-Brand Remote) Code Setting26
<u>N</u>
Next-Function Memory18
0
On-Screen Display16
<u>P</u>
Playback
<u>R</u>
Record Safety Tab13Recording13Repeat Playback17Reverse Motion Playback14Reverse Playback14Reverse Slow Motion Playback14RF Connection6
<u>S</u>
Skip Search17Slow Motion Playback14Specifications30Still Playback14Superimpose16
T
Tape Position Indicator18Tape Speed Setting13Timer Programming20Timer Recording20Tuner Setting9

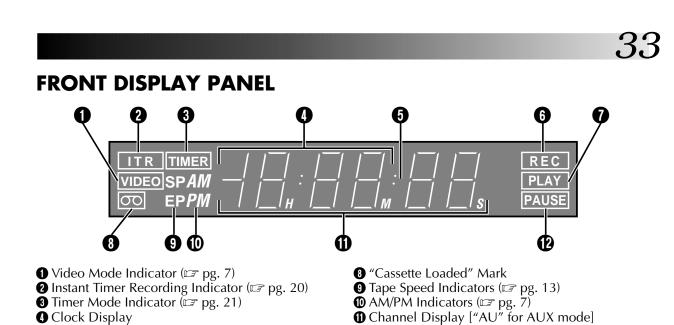
31



Power Cord (IF pg. 6)
 Audio Output Connector (IF pg. 6)
 Channel 3/4 Switch (IF pg. 6)

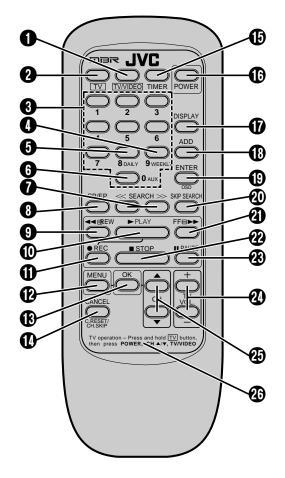
Video Output Connector (IF pg. 6)
RF OUT Connector (IF pg. 6)
ANT. IN Connector (IF pg. 6)

3



- Clock Display
- G Counter Display (🖙 pg. 18)
- 6 Recording Mode Indicator (C pg. 13)
- Play Mode Indicator (27 pg. 12)

REMOTE CONTROL (Provided)

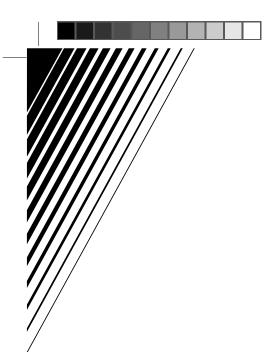


Pause Mode Indicator (🖙 pg. 13)

(🖙 pg. 24)

- TV/VIDEO Button (☞ pg. 7)
- 2 TV Operation Button (pg. 26)(Refer to 2 below)
- 3 NUMBER Buttons (17 pg. 8)
- WEEKLY Timer Recording Button (2) pg. 21)
- **(**DAILY Timer Recording Button () **21**)
- () "AUX" Mode Select Button () pg. 24)
- Reverse/Forward SEARCH Buttons (CF pg. 14)
- 8 Recording Speed [SP/EP] Button (2 pg. 13)
- **9** Rewind [REW] Button (CF pg. 12)
- Delay Button (pg. 12)
- Record [REC] Button (reg pg. 13)
- MENU Button (☞ pg. 7)
- (B) OK Button (🖙 pg. 7)
- CANCEL Button (🖙 pg. 22) Counter [C.] RESET (pg. 18) Channel [CH.] SKIP Button (CF pg. 11)
- (D) TIMER Button (C) pg. 21)
- DOWER ON/OFF Button (CF pg. 7)
- DISPLAY Button (CF pg. 18)
- (ADD Button (☞ pg. 11)
- (ENTER Button (pg. 13)
- On-Screen Display [OSD] Button (IF pg. 16)
- SKIP SEARCH Button (Erg pg. 17)
- Test-Forward [FF] Button (pg. 12)

- PAUSE Button (1) pg. 13)
 Volume [VOL] +/- Buttons (1) pg. 26)
- Instructions for remote control of the following TV functions: POWER, CH $\blacktriangle \lor$ and TV/VIDEO switching.



HR-A22U





COPYRIGHT © 1996 VICTOR COMPANY OF JAPAN, LTD.